Question # 6 of 10 (Start time: 02:32:45 PM, 27 August 2021)   Total Marks: 1

For an inner product space defined on a real vector space $\langle x, y \rangle = \ldots\ldots\ldots$

Select the correct option

Reload Math Equations

○ $\langle y, x \rangle$

○ $\langle x, y \rangle$

○ $\langle y, -x \rangle$

○ $\langle -y, x \rangle$

Click to Save Answer & Move to Next Question

Question # 8 of 10 (Start time: 02:19:22 PM, 27 August 2021)   Total Marks: 1

In an inner product space X over the field of Real numbers, for all x,y \in X\ and $\alpha \in F$, then $\langle x, \alpha y \rangle =$

Select the correct option

Reload Math Equations

○ $\alpha \langle x, y \rangle$

○ $\langle \alpha x, y \rangle$

Click to Save Answer & Move to Next Question

MTH641:Quiz-3

Question # 10 of 10 (Start time: 02:20:40 PM, 27 August 2021)

In an Inner Product space say X, for any sequences $\{x_n\}$ and $\{y_n\}$, if $x_n \longrightarrow x$ and $y_n \longrightarrow y$, then it ———.

Select the correct option

- ○ $\Rightarrow \langle x_n, y_n \rangle \longrightarrow \langle x, y \rangle$
- ○ $\Longrightarrow \langle x_n, y_n \rangle = \langle x, y \rangle$
- ○ $\Longrightarrow \langle x_n, y_n \rangle \longrightarrow \langle x, y \rangle$
- ○ $\Longrightarrow \langle x_n, y_n \rangle \neq \langle x, y \rangle$

MC180403600: TOUSEEF UR REHMAN

Time Left 88 sec(s)

MTH641:Quiz-3

Quiz Start Time: 02:11 PM, 27 August 2021

Question # 9 of 10 (Start time: 02:20:31 PM, 27 August 2021)

Total Marks: 1

For an inner product space $\langle x+y,z \rangle =$ ....

Select the correct option

- $\langle x,z \rangle + \langle y,z \rangle$ ✓

- $\langle x,z \rangle - \langle y,z \rangle$

- $\langle x,z \rangle . \langle y,z \rangle$

- None of these

Click to Save Answer & Move to Next Question

M(641)_Quiz_3

Question # 10 of 10 (Start time: 02:21:25 PM, 27 August 2021)   Total Marks: 1

In an inner product space X over the field F, $\langle x, z \rangle = \langle y, z \rangle$

Select the correct option

Reload Math Equations

- ○ $\Rightarrow x = y$, for some $z \in X$
- ○ $\Rightarrow x \neq y$, for all $z \in X$
- ○ $\Rightarrow x \neq y$, for all $z \in X$
- ○ $\not\Rightarrow x = y$, for all $z \in X$

Click to Save Answer / Move to Next Question

MC190403392: MUHAMMAD SHAHID

MTH641:Quiz-3

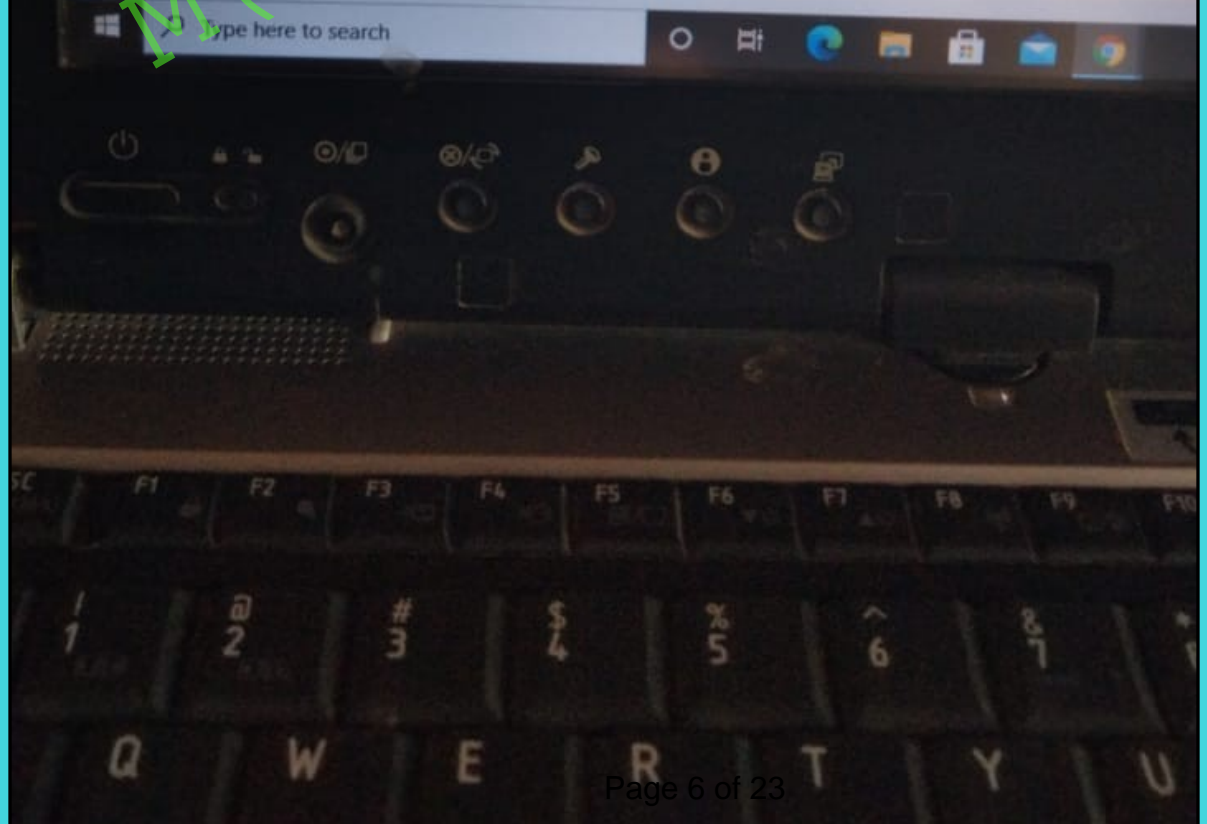Question # 8 of 10 (Start time: 02:29:05 PM, 27 August 2021)

In an inner product space X over the field of Complex numbers, for all x,y $\in X$ and $\alpha \in F$, then $(x, \alpha y) =$

Select the correct option

- $\alpha(x, y)$
- $\bar{\alpha}(x, y)$
- $(x, \bar{\alpha}y)$
- $(\alpha x, y)$

MTH641:QUIZ-3

Question # 7 of 10 (Start time: 02:18:04 PM, 27 August 2021)

Which of the following is not a condition of an inner product space?

Select the correct option

○ $\langle \alpha x + y, z \rangle = \langle x, z \rangle + \alpha \langle y, z \rangle$

○ $\langle x, x \rangle \geqslant 0$

○ $\langle \alpha x, y \rangle = \alpha \langle x, y \rangle$

○ $\langle x, y \rangle = \overline{\langle y, x \rangle}$

Cl

Every Inner product space is a metric space with norm given by;

Select the correct option

O	$d(x, y) = \|x - y\|$
O	$d(x, y) = \sqrt{\langle x - y, x - y \rangle}$
O	All above are equivalent
O	$\|x - y\| = \sqrt{\langle x - y, x - y \rangle}$

Question # 9 of 10 (Start time: 02:19:44 PM, 27 August 2021)

For an element x belongs to an inner product space , $\langle x, x \rangle = \ldots \ldots \ldots$

Select the correct option

	infinity
O	

	0
O	

	less than 0
O	

	greater than 0
O	

Question # 7 of 10 (Start time: 02:18:07 PM, 27 August 2021)　　　　Total Marks: 1

For an element x belongs to an inner product space , $\langle x, x \rangle = \ldots \ldots \ldots$

Select the correct option

Reload Math Equations

○ 0

○ greater than 0

○ less than 0

○ infinity

Click to Save Answer & Move to Next Question

2:19

57

X 🔒 Quiz
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Question # 10 of 10 (Start time: 02:19:28 PM, 27 August 2021)

In an inner product space X over the field of Real numbers,for all x,y and z $\in X$ and $\alpha \in F$,then $\langle \alpha x + \beta y, z \rangle =$

Select the correct option

R

$\alpha \langle x, z \rangle + \beta \langle y, z \rangle$

O

$\alpha \langle x, z \rangle + \bar{\beta} \langle y, z \rangle$

O

Click to Save Answer & Move to

In an Inner Product space say X, for any sequences $\{x_n\}$ and $\{y_n\}$, if $x_n \longrightarrow x$ and $y_n \longrightarrow y$, then it ------.

Select the correct option

○ $\implies \langle x_n, y_n \rangle \longrightarrow \langle x, y \rangle$

○ $\implies \langle x_n, y_n \rangle = \langle x, y \rangle$

○ $\implies \langle x_n, y_n \rangle \neq \langle x, y \rangle$

○ $\nRightarrow \langle x_n, y_n \rangle \longrightarrow \langle x, y \rangle$

Question # 1 of 10 (Start time: 02:11:42 PM, 27 August 2021)

In an inner product space X over the field of Real numbers,for all x,y $\in X$ and $\alpha \in F$,then $\langle x, \alpha y \rangle =$

Select the correct option

○ $\langle \alpha x, y \rangle$

○ $\alpha \langle x, y \rangle$

Click to Save Answer

🔒 https://quiz.vu.edu.pk/QuizQu   2   ⬆

Question # 1 of 10 (Start time: 02:05:57 PM, 27 August 2021)

Every complete Inner product space is ———.

Select the correct option

○	Euclidean space
○	Banach space
○	Hilbert space
○	Complex space

Click to Save Answer & N

Question # 8 of 10 (Start time: 02:18:50 PM, 27 August 2021)

For an inner product space <x+y,z>=............

Select the correct option

○ <X,Z> . <y,z>

○ None of these

○ <X,Z> + <y,z>

○ <X,Z> - <y,z>

Click to Save Answer & Move to

Quiz
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MC200203556: NIMRA

Time Left 89 sec(s)

MTH641:Quiz-3

Quiz Start Time: 02:12 PM, 27 August 2021

Question # 2 of 10 (Start time: 02:12:47 PM, 27 August 2021)

Total Marks: 1

In an Inner Product space say X, if the sequences $\{x_n\}$ and $\{y_m\}$ are Cauchy, then (x_n, y_m) is ———.

Select the correct option

Reload Math Equations

- necessarily a Cauchy Sequence in F

- necessarily a Cauchy Sequence in X

- not necessarily a Cauchy Sequence in X

- not necessarily a Cauchy Sequence in F

Click to Save Answer & Move to Next Question

quiz.vu.edu.pk/QuizQues

MC180403600: TOUSEEF UR REHMAN

Time Left 89 sec(s)

MTH641:Quiz-3

Quiz Start Time: 02:11 PM, 27 August 2021

Question # 2 of 10 (Start time: 02:12:38 PM, 27 August 2021)

Total Marks: 1

Let $(V, \langle .,..\rangle)$ be an inner product space over a field F, then ......

Select the correct option

🔄 Reload Math Equations

○ $\langle x, a.y \rangle = \bar{a}\langle y, x \rangle, \qquad \forall x, y \in V, a \in \Gamma.$

○ $\langle x, a.y \rangle = \bar{a}\langle x, x \rangle, \qquad \forall x, y \in V, a \in \Gamma.$

○ $\langle x, a.y \rangle = a\langle x, y \rangle, \qquad \forall x, y \in V, a \in F.$

○ $\langle x, a.y \rangle = \bar{a}\langle x, y \rangle, \qquad \forall x, y \in V, a \in F.$

Click to Save Answer & Move to Next Question

https://quiz.vu.edu.pk/QuizQu

2

Question # 9 of 10 (Start time: 02:12:15 PM, 27 August 2021)

For all x, y belongs to an an inner product space

$$\langle \alpha x, y \rangle = \ldots\ldots\ldots$$

Select the correct option

○	$\alpha \langle y, x \rangle$
○	$\alpha \langle x, y \rangle$
○	$\alpha \langle x, -y \rangle$
○	$\alpha \langle -x, y \rangle$

Click to Save Answer

M(641)_Quiz_3

Time Left **88** sec(s)

Quiz Start Time: 01:10 PM, 27 August 2021

Question # 5 of 10 (Start time: 01:14:49 PM, 27 August 2021) Total Marks: 1

In an inner product space X over the field of Complex numbers, for all x,y $\in X$ and $\alpha \in F$, then $\langle x, \alpha y \rangle =$

Select the correct option

⊙ Reload Math Equations

○ $\langle \alpha x, y \rangle$

○ $\langle x, \bar{\alpha} y \rangle$

○ $\bar{\alpha} \langle x, y \rangle$

○ $\alpha \langle x, y \rangle$

Click to Save Answer & Move to Next Question

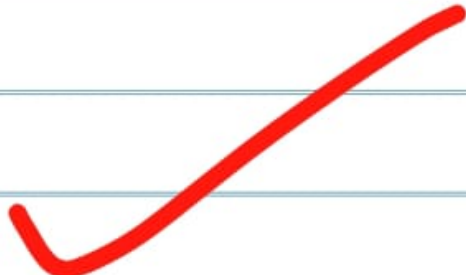Question # 2 of 10 (Start time: 01:11:53 PM, 27 August 2021)   Total Marks: 1

For an inner product space defined on a real vector space $\langle x, y \rangle = \ldots\ldots\ldots$

Select the correct option

Reload Math Equations

○ $\langle -y, x \rangle$

○ $\langle y, -x \rangle$

○ $\langle y, x \rangle$

○ $\langle x, y \rangle$

Click to Save Answer & Move to Next Question

MC200200058: SHAH KHALID

Time Left **85** sec(s)

MTH641:Quiz-3

Quiz Start Time: 01:10 PM, 27 August 2021

Question # 4 of 10 (Start time: 01:13:39 PM, 27 August 2021)

Total Marks: 1

In an inner product space X over the field F, $\langle x, z \rangle = \langle y, z \rangle$

Select the correct option

Reload Math Equations

○ $\Rightarrow x \neq y$, for all $z \in X$

○ $\Rightarrow x \neq y$, for all $z \in X$

○ $\not\Rightarrow x = y$, for all $z \in X$

○ $\Rightarrow x = y$, for some $z \in X$

Click to Save Answer & Move to Next Question

Question # 3 of 10 (Start time: 01:12:42 PM, 27 August 2021)   Total Marks: 1

Every Inner product space is a metric space with norm given by;

Select the correct option

Reload Math Equations

○ $d(x, y) = \sqrt{\langle x - y, x - y \rangle}$

○ $\|x - y\| = \sqrt{\langle x - y, x - y \rangle}$

○ All above are equivalent

○ $d(x, y) = \|x - y\|$

Click to Save Answer & Move to Next Question

M(641)_Quiz_3

Question # 1 of 10 (Start time: 01:10:56 PM, 27 August 2021)

Total Marks: 1

In an Inner Product space say X, if the sequences $\{x_n\}$ and $\{y_n\}$ are Cauchy, then $\langle x_n, y_n \rangle$ is ———.

Select the correct option

Reload Math Equations

○ necessarily a Cauchy Sequence in X

○ not necessarily a Cauchy Sequence in X

○ necessarily a Cauchy Sequence in F

○ not necessarily a Cauchy Sequence in F

Click to Save Answer & Move to Next Question